

REMARKS/ARGUMENTS

Status of Claims

Claims 1 to 20 are pending in this application with claims 1, 8, and 16 being the only independent claims. Claims 2, 4-7, 9, and 11-15 have been withdrawn from consideration in view of the Species Election Requirement. Independent claims 1, 8, and 16 have been amended and are supported by the subject matter in the respective previously presented claims. Claims 17 and 19-20 have been amended to conform to U.S. practice without narrowing the scope of any of the claims or any claim element contained therein. No new matter has been added.

Overview of the Office Action

Claims 16 and 20 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Boreali (US 6,210,515)

Claims 1, 3, 8, 10, and 18-19 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Sakai (JP 11-320989A) in view of Boreali.

Claim 17 has been rejected under 35 U.S.C. § 103(a) as unpatentable over Boreali in view of Sakai.

Summary of the Subject Matter Disclosed in the Specification

The following descriptive details are based on the specification. They are provided only for the convenience of the Examiner as part of the discussion presented herein, and are not intended to argue limitations which are unclaimed.

The specification discloses a printer 2 comprising a print head 7, a medium transport device 15 for transporting a supply of printing medium 10, and a control unit 3 controlling the operation of the medium transport device 15. The control unit 3 operates to activate the medium transport device 15 to carry out a rest state transport at periodic intervals, within which the

medium transport device 15 transports the printing medium 10 in and counter to an output transport direction 12. *See*, page 2, lines 10-17 of the specification as filed. Additionally, the rest state transport takes place at the start of an activation of the printer caused by receipt of a print job before the print job is processed (*see*, original claims 7 and 14 and page 4, lines 1-7).

During the rest state transport, the control unit 3 activates the medium transport device 15 in such a way that the printing medium 10 is initially conveyed from an initial position in a direction opposite to the output transport direction 12. As a result, the printing medium 10 entering into a connection with the print head 7 and the pressure roller 8 is pulled out by the pressure roller 8. The control unit 3 then activates the medium transport device 15 to convey the retracted printing medium 10 in the output transport direction 12 back into the initial position. This procedure can be repeated, as the system comes to the initial position present before the rest state transport. *See, e.g.*, page 3, lines 10-24. The rest state transport prevents the formation of an adhesive connection or the adhesive bonding of the printing medium 10 with components 7, 8 in contact with the printing medium 10. *See*, page 2, lines 24-29.

Patentability of the Claimed Invention

A. Independent Claim 16

Independent claim 16 recites the following:

the control unit is arranged to activate the medium transport device in such a way that, at the start of an activation of the printer caused by receipt of a print job by the control unit from the higher order controller and before processing the print job, the medium transport device carries out a rest state transport, within which rest state transport, the medium transport device transports the printing medium in and opposite to the output transport direction.

The above-recited claim features of independent claim 16 are not taught by Boreali because:

- (i) the claim term “a print job” is incorrectly interpreted in the Office Action to be a “desire” to print a particular set of images onto a medium (see page 8 of the Office Action), as

the such interpretation is inconsistent with what is explicitly disclosed in applicants' original application; and

(ii) Boreali does not teach or suggest carrying out the claimed rest state transport, because the "forward rotation" of Boreali drive roller 16 is carried out before an appropriate formatting signal is received by the printer 10 and thus cannot be considered as part of the claimed "rest state transport" caused by receipt of a print job as recited in independent claim 16.

(i)

In the Response to Arguments, the Office Action interprets the claim term "a print job" to be a "desire" to print a particular set of images onto a medium (see page 8 of the Office Action). Based on the following detailed reasons, applicants submit that the above claim interpretation made in the Office Action is incorrect because such interpretation is inconsistent with what is explicitly disclosed in applicants' original application.

In applicants' specification as filed, the term "a print job" is described as a "signal" in connection with a printed image. More specifically, applicants disclose the following:

A control unit 3 of the printer 2 is connected 5 to a higher-order controller 4 of the tachograph 1 so as to transmit signals. By means of the connection 5, the controller 4 transmits print jobs 6 to the control unit 3. (See pg. 5, ll. 3-6 of applicants' specification and Fig. 1 as filed; emphasis added.)

Fig. 1 of the present application clearly shows print job 6 as a signal sent from controller 4 to control unit 3 through connection 5. In view of applicants' disclosure above, the claim term "a print job" cannot be interpreted as a "desire" to print, but rather a signal in connection with a particular set of images to be transferred onto a medium. The claim term "a print job" is thus incorrectly interpreted in the Office Action.

To further clarify the claimed subject matter, applicants have amended independent claim 16 to recite a rest state transport carried out "at the start of an activation of the printer caused by

receipt of a print job by the control unit from the higher order controller and before processing the print job.” Support for this limitation is found in the original claims and at page 4, lines 8-14 of the application as filed.

Boreali fails to disclose the above limitations. Although Boreali discloses loading formatting information at block 29 in Fig. 3, Boreali fails to disclose “receipt of a print job”. Therefore, Boreali does not teach the claim feature of “a print job,” as is explicitly recited in independent claim 16. Independent claim 1 thus patentably distinguishes over Boreali for at least the above reasons.

(ii)

Boreali does not teach or suggest carrying out the claimed rest state transport, because the “forward rotation” of Boreali drive roller 16 is carried out before an appropriate formatting signal is received by the printer 10 and thus cannot be considered as part of the claimed “rest state transport” caused by receipt of a print job as recited in independent claim 16.

In the Examiner-cited portions of Boreali, the operation of a drive roller 16 is described in connection with the operation of a linerless label thermal printer 10 during the printing process. For example, Boreali teaches that the drive roller 16 is operated in a “forward rotation,” during which the leading edge 22 of the first label from the roll 12 is aligned with the cutter 18, in the first position (see, col. 4, ll. 1-9 and 30-38 of Boreali). As Boreali explicitly teaches, when the label is in that first position, the printer 10 is completely formatted (see, col. 4, ll. 38-39). In other words, the “forward rotation” of Boreali’s drive roller 16 is carried out before an appropriate formatting signal is received by the printer 10. Accordingly, Boreali’s “forward rotation” is not caused by receipt of a print job. Indeed, Boreali explicitly teaches that the “forward rotation” is operated “under control of the computer 20 and the firmware in the printer 10,” rather than signals in connection with the receipt of a print job.

In light of the above teachings of Boreali, one skilled in the art will appreciate that the “forward rotation” in Boreali cannot be considered as part of the claimed “rest state transport,” which is carried out “at the start of an activation of the printer caused by receipt a print job,” as is expressly recited in independent claim 16.

Moreover, Boreali discloses that after formatting the printer 10 and prior to printing, the drive roller 16 is operated in a “reverse rotation,” during which the leading edge 22 of the first label from the roll 12 is moved away from the cutter 18 and under the print head 17 for the printing operation (see, col. 4, ll. 47-49 of Boreali). This reverse rotation of Boreali results in only a one-direction backfeed of the label.

Since the “forward rotation” of Boreali is not performed in conjunction with the “reverse rotation”, Boreali does not teach the claimed “rest state transport,” in which “the medium transport device transports the printing medium in and opposite to the output transport direction” “at the start of an activation of the printer caused by receipt of a print job,” as expressly recited in independent claim 16. Accordingly, independent claim 16 patentably distinguishes over Boreali for the above additional reasons.

In view of all the above submission, independent claim 16 is allowable over Boreali. Withdrawal of the rejection of independent claim 16 is respectfully requested.

B. Independent Claims 1 and 8

Similar to independent claim 16, independent claim 1 recites the following claim features:

the control unit is arranged to activate the medium transport device in such a way that the medium transport device carries out a rest state transport at periodic intervals, and at the start of an activation of the printer caused by receipt of a print job before processing the print job,

during the rest state transport, the medium transport device transports the printing medium in and opposite to the output transport direction.

Also, independent claim 8 recites “transporting a printing medium with a medium transport device in and opposite to an output transport direction at periodic intervals, and at the start of an activation of the printer caused by receipt of a print job before processing the print job.”

The Office Action acknowledges that Sakai fails to specifically teach the transport device carries out a rest state transport at the start of an activation of the printer caused by a print job before processing the print job (see page 4 of the Office Action). The Office Action then refers to Boreali to remedy the deficiencies of Sakai.

Based on the above reasons submitted in connection with Boreali (see above Section A), applicants submit that Boreali does not teach what Sakai lacks. Accordingly, independent claims 1 and 8 each patentably distinguish and are allowable over the combination of Sakai and Boreali. Withdrawal of the claim rejections of independent claims 1 and 8 is respectfully requested.

C. Dependent Claims 3, 10, and 17-20

Claims 3, 10, and 17-20 depend, either directly or indirectly, from independent claim 1, 8, or 16 and are thus allowable therewith. In addition, these claims include features which serve to even more clearly distinguish the present claimed invention over the prior art of record.

D. Dependent Claims 2, 4-7, 9, and 11-15

Applicants respectfully request that the Examiner consider the additional species covered by claims 2, 4-7, 9, and 11-15 and rejoin the same in the subject application upon the allowance of the generic or linking claims—-independent claims 1 and 8.

Conclusion

Based on all of the above, it is respectfully submitted that the present application is now in proper condition for allowance. Prompt and favorable action to this effect and early passing of this application to issue are respectfully solicited. Should the Examiner have any comments,

questions, suggestions or objections, the Examiner is respectfully requested to telephone the undersigned in order to facilitate reaching a resolution of any outstanding issues.

No fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our PTO Deposit Account No. 03-2412.

Respectfully submitted,
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